

6-21-2011

Popular Depictions of Neanderthals

Anne Hamilton

The University of Western Ontario

Follow this and additional works at: <http://ir.lib.uwo.ca/totem>



Part of the [Biological and Physical Anthropology Commons](#), and the [Social and Cultural Anthropology Commons](#)

Recommended Citation

Hamilton, Anne (2005) "Popular Depictions of Neanderthals," *Totem: The University of Western Ontario Journal of Anthropology*: Vol. 13: Iss. 1, Article 12.

Available at: <http://ir.lib.uwo.ca/totem/vol13/iss1/12>

This Article is brought to you for free and open access by Scholarship@Western. It has been accepted for inclusion in Totem: The University of Western Ontario Journal of Anthropology by an authorized administrator of Scholarship@Western. For more information, please contact kmarshal@uwo.ca.

Popular Depictions of Neanderthals

Keywords

popular depictions, Neanderthals, popular culture, social darwinism

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](https://creativecommons.org/licenses/by-nc-nd/3.0/).

Popular Depictions of Neanderthals

Anne Hamilton

Clearly we are not the result of a constant and careful fine-tuning process over the millennia, and much of our history has been a matter of chance and hazard. Nature never "intended" us to occupy the position of dominance in the living world that, for whatever reasons, we find ourselves in. To a remarkable extent, we are accidental tourists as we cruise through Nature in our bizarre ways. But, of course, we are nonetheless remarkable for that. And still less are we free of responsibility (Tattersall 2002: 168).

The above quotation from Ian Tattersall reminds us that our species, *Homo sapiens*, was not created with a certain goal in mind. We are a well adapted, innovative, and highly intelligent species, but only because of chance. I should not have to remind you that natural selection is nothing more than an editor which deletes those traits which are not advantageous, and does not select against those which are. No trait is ever selected for. The idea that we are merely a chance creation leads us to question who we are, how, and why are we different. We know who we are as a species, as mentioned above, so that does not aid us in our search for identity. Our call for answers can be solved when looking at who we are not. We attempt to define our species by comparing ourselves with the others.

Who then is a logical comparison? In this paper I will present the Neanderthals as the rational comparison. They are both our immediate predecessors in Europe and west Asia, and arguably the next closest species to being "human," after us. We must next find a method to define ourselves. Scientific research being carried out by archaeologists and paleoanthropologists could be used, but in this paper I intend to present a less apparent form of comparison. I am proposing the use of art, specifically illustrations and popular literature, as a means of self definition. I hope to further argue that art is in fact an adaptive trait which was inherited in order to make sense of our world. By looking at Neanderthals with the sole purpose of defining ourselves we are also able to see how Neanderthals are popularly portrayed.

This consequence will be looked at when it arises.

The Neanderthals

Neanderthals are often referred to as *Homo sapiens neanderthalensis* or *Homo neanderthalensis* depending on which school of modern human origins (replacement or continuity) you adhere to (Klein 1999). My intentions for this paper are not to present my opinions on the origins of anatomically modern humans and will thus make no decision upon nomenclature, referring to this species or subspecies only as the Neanderthals.

Between 230,000 and 35,000 years ago the Neanderthals occupied the geographic region now known as Europe and west Asia. Specifically, based on archaeological evidence, from east to west: Uzbekistan to the Iberian plateau, and north to south from northern Wales to the shores of the Mediterranean (Stringer & Gamble 1993). They were a remarkable species who were either our immediate ancestors or a side branch of the *Homo* lineage. Either way, they show significant similarities, both morphologically and behaviorally, but also considerable differences, which makes it impossible for them to be considered "human." (Stinger & Gamble 1993; Klein 1999). In the following section I will briefly outline those Neanderthal traits which do and do not resemble anatomically modern humans.

Similarities

The morphological resemblance between Neanderthals and humans is quite striking, especially postcranially. The differences are due mainly to Neanderthal's muscular robusticity. Basically, there are no significant differences between Neanderthal and human postcranial features, including the posture, foot structure, and the basic structure and function of limbs (Klein 1999). The Neanderthal brain size, averaging 1,520cc, is also comparable to modern human brains, 1,560cc in the earliest anatomically modern humans and 1,340cc in living people (Klein 1999). The shape of the brain, according to endocasts, is different from human brains, but many scientists argue that it is impossible to judge brain function based only on external features and are content to assume that Neanderthal and human brain function were similar. Scientists know very little about the quantitative and qualitative areas of the Neanderthal brain, and therefore cannot assume

that because brains are of a different shape and proportion they are different in quality. However, the evidence of correlation between body and brain size cannot be ignored. Neanderthal's robust body may account for their large brains, and in proportion to our body size humans are more encephalized (Stringer & Gamble 1993). At present, evidence supporting similar brain function between Neanderthals and humans is debatable. Further research must be done for a better understanding, and the matter is open to interpretation.

Neanderthals and humans also share many behavioral traits including the ability to flake stone, control fire, and a dependence on meat which was likely procured through hunting. Neanderthal fossils reveal that some individuals suffered from debilitating disabilities and would not have survived for as long as they did had they not been cared for by their fellow Neanderthals (Klein & Edgar 2002), such as the "Old Man" from La Chapelle-aux-Saints who suffered from severe osteoarthritis (Stringer & Gamble 1993). There are also examples of individuals who suffered tremendous injuries and could have only survived and healed with the aid of their relations. An excellent example of this is the Shanidar I man whose head and right side of his body were crushed, which was followed by partial paralysis. Yet, he likely lived for a number of years after the accident (Stringer & Gamble 1993). Neanderthals were also among the first fossil hominids to bury their dead, but burials are rare, displaying no evidence of ritual or ceremony, and may just have been done to remove the unpleasant smell of a decomposing body from their living space (Klein & Edgar 2002).

Differences

The most evidence for morphological similarity between Neanderthals and humans lies in the function of their postcranial limbs and appendages, but there are a number of differences which separate them. "Neanderthals were extremely robust, heavily muscled; barrel-chested people with large, long, relatively low globelike skulls are large, long, prognathic faces." (Klein 1999: 348).

As mentioned above, because of the correlation between body and brain size, Neanderthals may have been less encephalized than humans. This would indicate why Neanderthals were behaviorally less innovative. They left no compelling evidence of art or jewelry, there is little evidence of tools made on

any other material than stone, and their stone tool kits, while well made, show a very small range of distinguishable tools (Klein & Edgar 2002).

Implications

It is quite easy to differentiate and liken ourselves to the Neanderthals, morphologically and behaviorally. I believe this is why we find them so fascinating and tend to focus on them in both scientific and popular outlets. Because they are so similar to us, yet not quite "human," they are the perfect vehicle for comparison. By contrasting ourselves to the next closest thing to "humanity" we are able to separate ourselves from the rest of the animal kingdom, explain the nature of our species, and reaffirm our uniqueness (Hackett & Dennell 2003).

Art

In this paper I have decided to look at art as one of the primary means used to define ourselves as a species. Scientific literature cannot be ignored as an important tool in our quest for self definition, but the fact that these publications are widely ignored by people outside of the scientific community is problematic (Hackett & Dennell 2003). A quote from Olga Soffer strengthens this point, "We [archaeologists] can't write for *normal* people, so I don't think we convey the excitement that drew us into the field." (quoted from Edgar 2002; emphasis added). We should then turn our attention to a resource which is able to reach "normal" people, because scientists are not the only ones searching for identity.

In my opinion this resource is art, which can be loosely defined as any meaningful attempt by a person made to imitate, enhance, alter, or counteract a work of nature (Carroll 2004). Possible subdivisions of art are infinite and therefore it is impossible to create a complete list, but some of the more popular forms include film, pictures, paintings, and literature. In this paper I will specifically look at illustrations and novels which attempt to reconstruct Neanderthal lifestyle.

Social Darwinism

At the turn of the twentieth century, sociologist Emile Durkheim and anthropologist Franz Boas attempted to sever the study of biology from humanity. They argued that an individual's world view was based on the culture or society in which they were raised. The basis of their argument was that culture, not biology, shaped who we are. In this theory it is

impossible to create a universal definition of human nature, and those behaviors seen in societies throughout the globe are inexplicable. This school of thought is known as Structuralism (Boyd 1998). In the 1970s a new school of thought, known as Post Structuralism, was introduced arguing language was the only agent in creating our world, the individual and nature were left out of the equation. The Post-Structuralists believed that even within a society, the boundaries of human nature are not static (Carroll 2004). In a world where neither the human nor nature was real it was impossible for human nature to exist.

I argue that human nature does exist as a universal and is an adaptive trait inherited through natural selection. Our ability to use art, an ability performed only by humans making it a part of our human nature, is inherited just like any other trait (Carroll 2004). Natural selection is a process of all or nothing and "if natural selection did not shape any vital feature of a single living species, then [...], it does not pertain to any of us" (Cooke 1999: 3). The process of natural selection is based on the idea that offspring tend to inherit morphological and behavioral features from their parents. Any new trait which enhances an individual's chances of survival and reproduction will increase in frequency; it becomes an adaptive trait (Klein 1999). This theory is known as Social Darwinism.

The Function of Art

Art has arisen out of a deep rooted need for humans to make sense of their world in an emotional and meaningful way (Boyd 1998; Carroll 2004). Human nature is both the source and subject of art; it shows human experience (Carroll 2004).

Pictures

In this portion of my paper I will look at images of Neanderthals which are constructed by archaeologists and paleoanthropologists based on data collected to show how Neanderthals are defined, and also how we use these images to define ourselves. It was mentioned above that scientific literature has not been a powerful means of comparison because of its inability to reach the masses. I feel that though these illustrations are commissioned by scientists they are more readily available and comprehensible to the public.

Visual depictions of Neanderthals

Scientists collect and analyze data and, after combining various lines of evidence, commission the reconstruction of a scene portraying "life as it was" (Moser 1992: 1). These reconstructions are an attempt to bring the subject back to life, and in the case of the Neanderthals involves "literally putting the flesh on the bones" (Adkins & Adkins 1989). The reconstructions are usually based on a theory reasoned by the scientist who is attempting to decipher the cryptic materials he/she has collected. The image is also highly imaginative (Adkins & Adkins 1989). Sorrell writes: "[G]ood art is an extension of sensibility, and not a loose sloppy attitude towards facts" (1981: 21). He also explains the dependence of art and archaeology in the following passage:

archaeology deals with humanity – that is, people in their environment of nature and architecture. People have never been able to live without art, and archaeology, which is the study of people and their interpretation of their activities in the past, cannot be properly considered without it. (1981:21).

In this quotation, Sorrell is saying that archaeological reconstruction is an important medium and should not be disregarded in archaeological analysis.

To see the full importance of reconstruction we can look at an illustration by Sorrell of a Mesolithic hunting camp in Star Carr, North Yorkshire (Fig. 1). This drawing is highly imaginative, but it does use the scientist's data collection (flora, fauna, tools, etc.) to direct the illustration (Adkins & Adkins 1989). In formulating his/ her theory that this was a hunting camp, the archaeologist had to take into account all of the data recovered including the time occupied (winter occupation), the location (the shore of a shallow lake), the extensive faunal remains (predominantly red deer, but also wild oxen, elk, roe deer, and wild pig), the tools (spearheads for hunting, barbed harpoon spearheads for fishing, and axes and adzes for chopping and processing wood). The archaeologist then relayed this data to the illustrator in order for him/her to create a believable model (Sorrell 1981).

It should be noted that these reconstructions do not only display a certain lifestyle, but one that is different from our own. In the case of Neanderthals, we are able to see

how differently they looked and lived creating a stark and immediate contrast between them and ourselves (Moser 1992). We are finally able to see their stocky build, their prognating face and sloping forehead. The idea that they were different becomes fact in our mind as soon as we see a certain depiction.

Archaeological reconstructions are not only a means of reconstruction for a fossil collection, but are the scientist's attempt to illustrate a theory of past life. Because the images reinforce a certain theory they become more than an illustration, they become an argument towards a theory (Moser 1992). We can look at Marcellin Boule and Arthur Keith's reconstructions of the "Old Man" of La Chapelle-aux-Saints to prove that visual reconstructions serve as a means to argue a theory.

Boule's reconstruction

In 1909 a reconstruction of a Neanderthal individual from La Chapelle-aux-Saints was published in *L'Illustration* (Fig. 2). It was the first scientific full body reconstruction of a Neanderthal and within its boundaries the environment of the Neanderthal is inferred. The artist, Kupka, apparently was meticulous in the reconstruction, paying attention to all laws of anatomy (Moser 1992).

The Neanderthal is a hairy, slouched fiend who brandishes a club and boulder in each hand. The image can hardly be described as resembling anything human; our first impression is that the individual is more "ape-like" than "human." (Moser, 1992).

Boule believed that Neanderthals were too different from modern humans to be our ancestors. He believed they were "the withered branch of an evolutionary line coincident with, but independent of, that line leading to man of modern aspect" (Kennedy 1975: 30). He even classified the species *Homo neanderthalensis* (Stringer & Gamble 1993) designating Neanderthal as a separate species from *Homo sapiens*. Boule argued that because of the individual's apish body structure and probable low intelligence it was impossible for him/her to be our ancestor. He even compared the skeletal remains from La Chapelle-aux-Saints to a modern Australian Aborigine (Fig. 3). Because the Neanderthal remains differed from the Aborigine (considered one of the "lowest races" in Boule's time) there was no doubt in Boule's mind that this creature was in no way a "stage" or "phase" of our evolutionary process (Stringer

& Gamble 1993). Instead he argued for a replacement theory where anatomically modern humans wiped out the Neanderthals (Moser 1992).

Keith's Neanderthal

In 1911 a contrasting reconstruction of the same individual was published in the *Illustrated London News* by Arthur Keith (Fig. 4). The individual, who is quite "human," is knapping a flint tool, wearing clothes, and is surrounded by everyday items such as a spear, an axe and a controlled fire. Contrasting Boule's views, Keith believed that Neanderthals were our direct ancestors and constituted the "Neanderthal Phase" of our evolution rather than a dead-end branch. Keith argued for a continuity or unilineal model of evolution (Moser 1992).

Implications

Boule and Keith commissioned reconstructions of the same skeleton, but they turned out very differently. This is because they modeled their views of human evolution into the reconstruction. It should then make sense that the pictures are different because they represent two very different theories (Moser 1992).

Problems

Certain problems do arise when using visual reconstructions. The first is that the illustrations imply that the past is "known" or, "the artist is reflecting certainty rather than doubt; a unanimity of opinion rather than a certain viewpoint" (Hackett & Dennell 2003). This assumption of the "known" leads to the fossilization of the image. In such cases an image continues to be replicated even after scientific data has been disproved (Adkins & Adkins 1989; Moser 1992). Adkins and Adkins argue that as long as scientists thoroughly research their reconstructions the problem will be remedied (1989), but they fail to realize that a widely accepted and popular reconstruction presented in the 1970s may not be accepted in 2005 because of dynamic character of the fossil and archaeological records, and the always changing nature of social theory (i.e. the role of women in anthropology). Boule's reconstruction (Fig. 2) is a clear example of the fossilization that can occur. After Boule's reconstruction was presented in 1909 many of the following reconstructions shared similar depictions of slouched, bent-kneed and club wielding Neanderthals. A 1915 reconstruction by Henry Fairfield Osborn claimed to be scientific, but it

is obvious that it was largely influenced by Boule's reconstruction (Fig. 5). The slouched posture of Boule's reconstruction was falsified in 1957 by Straus and Cave (1957) who discovered that the "Old Man" of La Chapelle-aux-Saints suffered from severe osteoarthritis and his vertebra had severely degenerated over time. This pathology is what causes the slouched posture in this individual, and by no means did he have the posture of a typical or healthy Neanderthal (Straus & Cave 1957). Reconstructions claiming to be scientific, but still portraying a slouched posture continue to appear in museums and publications today.

If scientists are influenced by prior reconstruction there is no doubt that the masses are influenced. Conkey writes of archaeological knowledge as being "selectively re-confirmed and even re-constructed by [...] popular discourse" (1997: 200). Individuals outside of the scientific community may see an outdated reconstruction, like Boule's, and take it for reality without question. This solidifies the stereotype. As anthropologists we have a responsibility to portray Neanderthals as they are, rather than succumbing to the stereotype, but this has proved difficult because alternative images presented by the scientific community have not been widely accepted by the masses (Moser 1992). Our perceptions have been shaped by the stereotype, and just like any bad habit, it is hard to get rid of.

Literature

Archaeological reconstruction does a very nice job presenting how we see Neanderthals and how we define ourselves using this outlet, but I believe that popular literature, especially novels and short stories, are an even better tool in our pursuit of species definition. While literature cannot display a visual summary it is able to show the character of certain individuals (i.e. Neanderthals versus humans), display a sequences of actions (we see exactly how individuals may have acted in a certain situation rather than a static image), and have a plot (how the theory being depicted plays out) (Hackett & Dennell 2003).

Neanderthals in Literature

The collection of Neanderthal fiction is massive, but virtually every story written has dealt with the interaction of Neanderthals with anatomically modern humans. We would be hard pressed to find a story which dealt with Neanderthals alone. This is because we are only

interested in defining ourselves through comparison with Neanderthals, not viewing their behavior (Hackett & Dennell 2003). "By contrasting what it means to be "us" as fully modern humans, as opposed to "them," or those who are not" (Hackett & Dennell 2003: 817) human is our reason for producing literature. It provides us with a means to make sense of our world (Carroll 2004).

Surface structure

I read three works of Neanderthal fiction, all dealing with the interaction between Neanderthals and modern humans. While each of the stories have a similar premise their storylines are all very different. The first work I read was a short story by H.G. Wells titled *The Grisly Folk* which was first published in 1921. In this story a group of modern humans are forced to leave their homeland because of population growth and competition for resources. Along their travels they meet a monstrous Neanderthal beast who, along with others of his kind, stalked the humans and even kidnapped one of their young. The superior humans fought back and eventually annihilated the Neanderthals and claimed the land as their own. In this short story Neanderthals are portrayed as shambling, hunched over, and hairy beasts who are incapable of reason and prone to violence (Wells 1958). Wells' description of the Neanderthals was highly influenced by Boule's 1909 reconstruction and would have been considered typical in the beginning of the twentieth century (DePaolo 2000).

I also read *The Inheritors* by William Golding which was first published in 1955. The plot focuses on a small band of Neanderthals who were returning to their summer cave. While there, they encountered a group of anatomically modern humans who were scared by the Neanderthals (they actually believed they were evil forest spirits) and killed them one by one (Golding 1961). Morphologically, Golding's Neanderthal,

was a strange creature, smallish, and bowed. The legs and thighs were bent and there was a whole thatch of curls on the outside of the legs and the arms. The back was high, and covered over the shoulders with curly hair. Its feet and hands were broad, and flat, the great toe projecting inwards to grip. The square hands swung down to the knees (1961:219).

This portrayal is very similar to Boule's model. Behaviorally the Neanderthal was the opposite of Boule's fiend. They were like naïve and innocent children and only ate meat because it was necessary for survival (Golding 1961). When asked of the research put into writing *The Inheritors* Golding claimed that he "had read all there was to read" and further stated that "if you found a contradiction between Neanderthal man as he is now and Neanderthal man as I wrote about him, my guess is you will find that it has been discovered since" (quoted in Biles 1970: 106). Golding was confident in his portrayal of Neanderthal, and he had right to be as his model fit with that of scientists in the 1950s (DePaolo 2000).

Jean Auel's highly successful debut on the literary scene, *Clan of the Cave Bear*, was first published in 1980. It followed an orphaned Cro-Magnon girl who is adopted by a clan of Neanderthals. The young girl, Ayla, must learn to suppress her original "human" tendencies and conform to the subdued Neanderthal norm. Ayla remains with the Neanderthals, and even has a hybrid child, until she is banned from the group. She sets off to her prospective future while doomed Neanderthals remain (Auel 2002). Auel's reconstruction of the Neanderthals is arguably flawless and has been praised by anthropologists around the globe (DePaolo 2000).

Deep Structure

The accuracy of the Neanderthal models produced were accepted by scientists at their times of publication, but because the fossil record is dynamic, new evidence on the morphology and behavior of the Neanderthals is always changing. So each Neanderthal depiction (morphologically and behaviorally) is quite different from the others. But each of the texts has an identical deep structure which entails nine functions. We begin with the setting of the scene (1), the hero is then introduced (2), the situation changes (3), the hero prepares to depart (4), the hero is tested (5), the hero receives aid from a donor (6), because of this aid the hero is transformed (7), the hero is tested again (8), and achieves his/her goal (9) (Terrell 1990).

This structure can most easily be seen through the least complex story, *The Grisly Folk*. The decline of the Ice Age prepared the scene for the modern humans (1), and anatomically modern humans are introduced (2). They leave their homeland because of population growth and competition (3), and journey northward (4)

where they encounter Neanderthals who are vile and evil creatures (5). The human's higher intellect is his/her gift (6) and turns their fear into bravery (7). The humans struggle to destroy the Neanderthals (8), but eventually do and are able to claim the land as their own (9) (Hackett & Dennell 2003; Wells 1958).

The deep structure of the other stories, using a compact model, can also be shown. This model entails the introduction of the hero (1), the hero faces many trials (2), and achieves his/her final goal (3) (Hackett & Dennell 2003). In *The Inheritors* we meet the modern humans late in the story (1), who, out of fear, kill the Neanderthals (2) and therefore secure their safety (3) (Golding 1961). In *Clan of the Cave Bear*, Ayla is adopted by the Neanderthal clan (1), but must repress her "human" characteristics in order to fit in (2). When she is banished from the clan she achieves freedom from these constraints and is able to search for her own people (3) (Auel 2002).

The Hero

In these narratives humans are always the heroes, but only because they are able to be innovative while the Neanderthals are not. They can be the hero independently, as Ayla is in *Clan of the Cave Bear*, or collectively as in *The Grisly Folk* and *The Inheritors* (Hackett & Dennell 2003). In all three of the stories Neanderthals lack innovation. A quote from *Clan of the Cave Bear* demonstrates this point nicely. "[Neanderthals were] too static, too unchanging. They had reached the peak of their development; there was no more room to grow" (Auel 2002: 162). Basically, there is no way the Neanderthals could be the heroes because they are unable to achieve anything. Lok, a male Neanderthal in *The Inheritors*, tries to save his clan members from the humans but is consistently distracted by his instinctive needs (food, sleep, and sex) or forgets altogether that the humans are trying to kill him (Golding 1961). At best, the Neanderthals are a poor imitation of the humans. This sharp contrast between humans and Neanderthals exemplifies our innate superiority. Humans are proactive, while Neanderthals are static.

Problems

Two problems arise when we use popular literature as a means to define ourselves. The first issue is that Neanderthal fiction tends to favour a replacement theory over one on continuity. A story in which someone attempts

to depict a unilinear model of modern human emergence would be considered quite boring because there would be no protagonists or antagonists, and nothing would happen except gradual change. For this reason there is a bias towards the more exciting replacement theory (Hackett & Dennell 2003).

There is also a bias towards a replacement theory where "killer Africans with Rambo-like technology [swept] across the world and [obliterated] everybody they [met]" (Wolpoff quoted in Shreeve 1995: 72) in what could be considered a "Pleistocene holocaust" (Shreeve 1995). Other possible ends to the Neanderthal species include death due to infectious disease or the inability to adapt to a changing environment. We also cannot forget the possibility that Neanderthals evolved into modern humans and therefore technically never became extinct (Hackett & Dennell 2003).

Conclusions

Homo sapiens are a very young and very different species. Like many young people in our society we are searching for identity. Teens differentiate themselves by listening to crazy music and wearing funny clothes, but it is not that easy for our species. How do we differentiate ourselves from every other animal on the planet? I have argued that it is through the use of art. While we may not consciously create art for the specific means of species differentiation, it serves that purpose. Neanderthals are the logical means of comparison because, as our immediate predecessors in Eurasia, they are the next closest species to being "human," but do not quite make the cut. If we are superior to them, we are superior to every other species. By reconstructing their morphology and behavior in pictures and fiction we are able to see how different Neanderthals were and thus our natural supremacy shines through. Art may not tell us exactly who we are, but it gives us a starting point.

Bibliography

- Adkins, L., Adkins, R.A. 1989. *Archaeological Illustration*. Cambridge: Cambridge University Press.
- Auel, J.M. 2002. *Clan of the Cave Bear*. New York: Bantam.
- Biles, J.I. 1970. *Talk: Conversations with William Golding*. New York: Harcourt Brace Jovanovich, Inc.
- Boyd, B. 1998. Jane, Meet Charles: Literature, Evolution and Human Nature. *Philosophy and Literature*. 22:1-30
- Carroll, J. 2004. *Literary Darwinism: Evolution, Human Nature, and Literature*. New York: Routledge.
- Conkey, M.W. 1997. "Mobilizing Ideologies: Paleolithic "Art," Gender Trouble, and Thinking About Alternatives." In *Women in Human Evolution*. Hager L.D., (editor). pp. 172-207. New York: Routledge.
- Cooke, B. 1999. "Biopoetics: the New Synthesis." In *Biopoetics: Evolutionary Exploration in the Arts*. Cooke, B., and Turner, F., (editors). pp. 3-25. Lexington: ICUS.
- DePaolo, C. 2000. Wells, Golding, and Auel: Representing the Neanderthal. *Science Fiction Studies*. 27: 419-438.
- Edgar, B. 2002. Chronicler of the Ice Age. *Archaeology* 55:36-41.
- Golding, W. 1961. *The Inheritors*. London: Faber and Faber.
- Hackett, A., and Dennell, R. 2003. Neanderthals as Fiction in Archaeological Narrative. *Antiquity*. 77:816-827.
- Kennedy, K.A.R. 1975. *Neanderthal Man*. Minneapolis: Burgess Publishing Company.
- Klein, R.G. 1999. *The Human Career: Human Biological and cultural Origins*, Second Edition. Chicago: University of Chicago Press.
- Klein, R.G., and Edgar, B. 2002. *The Dawn of Human Culture*. New York: John Wiley & Sons, Inc.
- Moser, S. 1992. The Visual Language of Archaeology: a Case Study for the Neanderthals. *Antiquity*. 66:831-844.

Shreeve, J. 1995. *The Neanderthal Enigma*. New York: William Morrow and Company, Inc.

Sorrell, M. 1981. *Reconstructing the Past*. London: Batsford Academic and Educational Limited.

Straus, W.L., and A.J.E. Cave. 1957. Pathology and the Posture of Neanderthal Man. *The Quarterly Review of Biology* 32:348-363.

Stringer, C., and C. Gamble. 1993. *In Search of the Neanderthals*. New York: Thames and Hudson.

Tattersall, I. 2002. *The Monkey In the Mirror: Essays n the Science of What Makes Us Human*. New York: Harcourt.

Terrell, J. 1990. Storytelling and Prehistory. In *Archaeological Method and Theory*, Volume 2. Schiffer, M., (editor). pp. 1-29. Tuscon, Arizona: University of Arizona Press.

Wells, H.G. 1958. The Grisly Folk. In: *Selected Short Stories*. pp. 285-299. London: Penguin.